

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

1.96
R3/Fs0
Cop. 2

Water Supply Outlook For Oregon



SOIL CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE

Cooperating with

OREGON DEPARTMENT OF WATER RESOURCES

AS OF
MAY 1, 1980

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: THE SNOTEL PROJECT CENTRAL COMPUTER FACILITIES IN PORTLAND, OREGON. THE TERMINAL, PRINTER, COMPUTER AND TAPE DRIVES HAVE NOT COMPLETELY REPLACED THE SNOW SAMPLING TUBES SEEN IN THE FOREGROUND.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno, Nevada 89505
Oregon	1220 S. W. Third Ave., Portland, Oregon 97204
Utah	4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U. S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.



WATER SUPPLY OUTLOOK FOR OREGON

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued

MAY 1, 1980

Issued by

NORMAN A. BERG
ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D C.

Released by

GUY W. NUTT
STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
PORTLAND, OREGON

In Cooperation with

OREGON
DEPARTMENT
OF
WATER RESOURCES

Report prepared by

TOMMY A. GEORGE, Snow Survey Supervisor
RONALD A. JONES, Asst. Snow Survey Supervisor
WILLIAM E. WOOLCOCK, Hydrologic Technician
SOIL CONSERVATION SERVICE
1220 S.W. THIRD AVENUE
PORTLAND, OREGON 97204

TABLE OF CONTENTS

PAGE

WATER SUPPLY PROSPECTS FOR OREGON.....(MAP)..... FACING PAGE 1

WATER SUPPLY OUTLOOK FOR OREGON..... 1

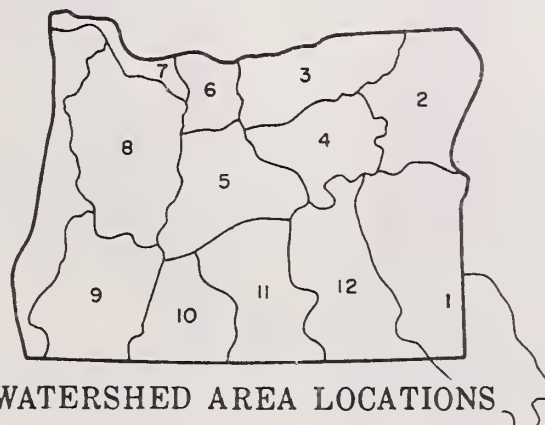
DETAILED WATER SUPPLY OUTLOOK BY MAJOR WATERSHED AREAS

OWYHEE, MALHEUR.....	AREA 1
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA.....	AREA 2
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY.....	AREA 3
UPPER JOHN DAY.....	AREA 4
UPPER DESCHUTES, CROOKED.....	AREA 5
HOOD, MILE CREEKS, LOWER DESCHUTES.....	AREA 6
LOWER COLUMBIA.....	AREA 7
WILLAMETTE.....	AREA 8
ROGUE, UMPQUA.....	AREA 9
KLAMATH.....	AREA 10
LAKE COUNTY, GOOSE LAKE.....	AREA 11
HARNEY BASIN.....	AREA 12

BASIC DATA SUPPLEMENTS	I	SNOW
	II	SOIL MOISTURE
	III	PRECIPITATION

MAP AND INDEX OF OREGON SNOW COURSES.....(MAP)

LIST OF COOPERATORS.....INSIDE BACK COVER



WATERSHED AREA LOCATIONS

WATER SUPPLY OUTLOOK AND SUMMARY FOR OREGON

MAY 1, 1980

*The water supply outlook has deteriorated from last month and is now below *
*normal for users without stored water available. Warm temperatures during *
April has melted much of the mountain snowpack in the state. The runoff from
*this snowmelt has not been as much as expected. However, reservoir storage *
*is close to average and should provide adequate water to most users except *
*for some areas in Deschutes and possibly Jackson counties. *

SNOW COVER

The mountain snow cover has melted off except at the highest elevations. Conditions are similar to what would be expected on June 1. The best snow cover is in the Wallowas at 99% of average. The rest of eastern Oregon ranges from 65% on the Owyhee to 44% of average on the Malheur. The central Oregon snow cover has completely melted from the upper Grande Ronde, the Crooked River and McKay Creek. It is 25% on the Umatilla, 37% on the John Day and 57% of average in Lake County. The Cascade snowpack is located at the highest elevation snow courses. Mt. Hood, where the snow cover is 77% of average, has snow at 3700 feet elevation and above. Conditions worsen south of this area as the snow cover ranges from 3% on the Clackamas to near 50% in the central and southern Cascades.

PRECIPITATION

Precipitation during April was generally pretty good in the state. It was near normal or above in all areas except in Harney and Lake counties and in the John Day basin where it was about half of average. The precipitation was not in large amounts, however, and did not contribute much to runoff.

RESERVOIR STORAGE

Reservoir storage is generally near average. Twenty-six major irrigation reservoirs are storing 2,695,000 acre feet of water. This is 102% of the May 1 average. Half of normal storage exists in Crescent Lake and Crane Prairie on the Deschutes. This could pose a water problem for some users dependent on this water.

-continued on next page-

STREAMFLOW

Streamflow this past month was normal to above normal except on the Owyhee and in Klamath County where it was about 65% of average. Runoff should have been much higher considering the snowmelt that occurred this past month. Many forecasts for expected summer runoff have been reduced 10 to 40% from last month's report.

Forecasts of representative Oregon streams are as follows:

<u>STREAM</u>	<u>PERIOD</u>	<u>FORECAST</u> <u>% of 1963-77 AVG.</u>
Owyhee net Inflow	May-Sept.	82
Malheur nr. Drewsey	May-Sept.	78
Deschutes @ Benham Falls	May-Sept.	80
Grande Ronde @ La Grande	May-Sept.	70
Willamette, Mid.Fk. nr. Oakridge	May-Sept.	70
Upper Klamath Lake net Inflow	May-Sept.	68
Rogue @ Raygold	May-Sept.	64
Silvies nr. Burns	May-Sept.	96

These forecasts are based on normal weather conditions occurring from now to the end of the forecast period. If the recent warm dry trend continues, volumes will be less than forecasted.

The forecasts in this bulletin are a result of coordinated activity between the Soil Conservation Service and the National Weather Service as an effort to provide the best possible service to water users.

This report contains data furnished by the Oregon Department of Water Resources, U.S. Geological Survey, NOAA National Weather Service and other cooperators.

The water supply outlook is good for users in Malheur County with access to stored water supplies. Stored water is excellent with most major reservoirs full at this time. The snow cover is mostly much below normal as much melt occurred in April. Present conditions are similar to what could be expected on June 1. Runoff was less than expected during April. Streamflow is expected to be below average for the rest of the summer.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		THOUSAND ACRE FEET		
	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average ^c
Bully Creek at Warm Springs	8.0	63	March-May		12.6 ^b
Malheur near Drewsey	28	78	May-July		36
	29	78	May-Sept.		37
Malheur, North Fork at Beulah	31	80	May-July		39
	35	80	May-Sept.		44
Owyhee Reservoir net Inflow	160	81	May-July	190	197
	184	82	May-Sept.	222	224
Owyhee at Rome	170	84	May-July		202 ^b

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Owyhee near Rome	2000	May 8	May 14
	1000	May 14	May 28
	500	June 6	June 11

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Beulah Reservoir	60.0	59.0	54.7	50.3
Bully Creek	30.0	28.3	29.9	24.0
Owyhee	715.0	701.2	708.6	618.4
Warm Springs	191.0	180.3	161.0	147.5

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Jordan Creek	1	79	129
Malheur River	4	37	44
Owyhee River	6	46	65

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS

OREGON

GENERAL OUTLOOK

The water supply outlook is near average on most streams heading in the Wallowas. It is below average elsewhere, except on the Burnt River where it is much below average. Users with stored supplies available should have adequate water. Reservoir storage is good. The snow cover is average in the Wallowas and poor elsewhere. It is gone on the Upper Grande Ronde above La Grande. Precipitation this past month was near average.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^C
Anthony Creek blw. North Fork nr. North Powder	11.4	83	May-July		13.7
Bear near Wallowa	48	81	May-Sept.		59
Big Creek blw. Burn Cr. nr. Medical Spring	5.5	85	May-July		6.5
Burnt near Hereford	10.2	61	May-July		16.7
	11.3	62	May-Sept.		18.2
Catherine near Union	43	80	May-Sept.		54
Deer Creek abv. Phillips Res. nr. Sumpter	9.7	85	May-July		11.4 ^b
Eagle Creek abv. Skull Creek	119	80	May-July		149
	132	80	May-Sept.		165
Grande Ronde at La Grande	66	69	May-July	136	96
	70	70	May-Sept.	139	100
Hurricane near Joseph	40	91	May-Sept.		44
Imnaha at Imnaha	220	86	May-Sept.		256
Lostine near Lostine	112	96	May-Sept.		117
Pine Creek nr. Oxbow	126	80	May-July		157 ^b
Powder near Sumpter	36	84	May-July		43
	37	84	May-Sept.		44
Wallowa, East Fork near Joseph	7.2	85	May-July		8.5
	9.5	88	May-Sept.		10.8
Wallowa at Joseph	59	86	May-July		69
Wolf Creek Res. net Inflow	4.5	54	May-June		8.4

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^C
Phillips Lake	73.5	65.2	67.9	59.1
Thief Valley	17.4	17.4	17.4	17.4
Unity	25.2	25.3	25.5	24.1
Wallowa Lake	37.5	24.5	36.1	30.9
Wolf Creek	10.4	10.0	8.7	--

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^C
Burnt River	4	52	62
Grande Ronde River			
above La Grande	4	0	0
Powder River	5	50	59
Wallowa, Imnaha, Catherine Creek	5	85	99

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Catherine Creek nr. Union	41	Aug. 1	Avg. value 49
	100	July 1	July 9
	50	July 20	July 28

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

GENERAL OUTLOOK

10 0 10 20 30 MILES

SCALE 1:1,500,000



STREAMFLOW FORECASTS

STREAMFLOW FORECASTS	THIS YEAR			PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Butter Creek nr. Pine City	2.9	83	May-July		3.5
Couse Creek nr. Milton Freewater	1.5	79	May-July		1.9 ^b
McKay near Pilot Rock	4.5	62	May-Sept.		7.3
Pine Creek near Weston	0.7	80	May-July		0.9 ^b
Rhea Creek nr. Heppner	1.5	81	May-July		1.9
Rock Creek abv. Cayuse Canyon nr. Condon	2.0	80	May-July		2.5 ^b
Umatilla near Gibbon	27	63	May-July		43
	34	69	May-Sept.		49
Umatilla at Pendleton	51	69	May-July		74
Walla Walla, South Fork near Milton	46	85	May-Sept.		54
Willow Creek at Heppner	2.3	85	May-July		2.7

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Umatilla at Pendleton	550	May 2	May 17
So. Fk. Walla Walla nr. Milton	200	May 26	June 9
	101	Aug-Sept.	Avg. value 105 cfs

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Cold Springs	50.0	46.8	49.0	47.8
McKay	73.8	67.8	68.1	55.0

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

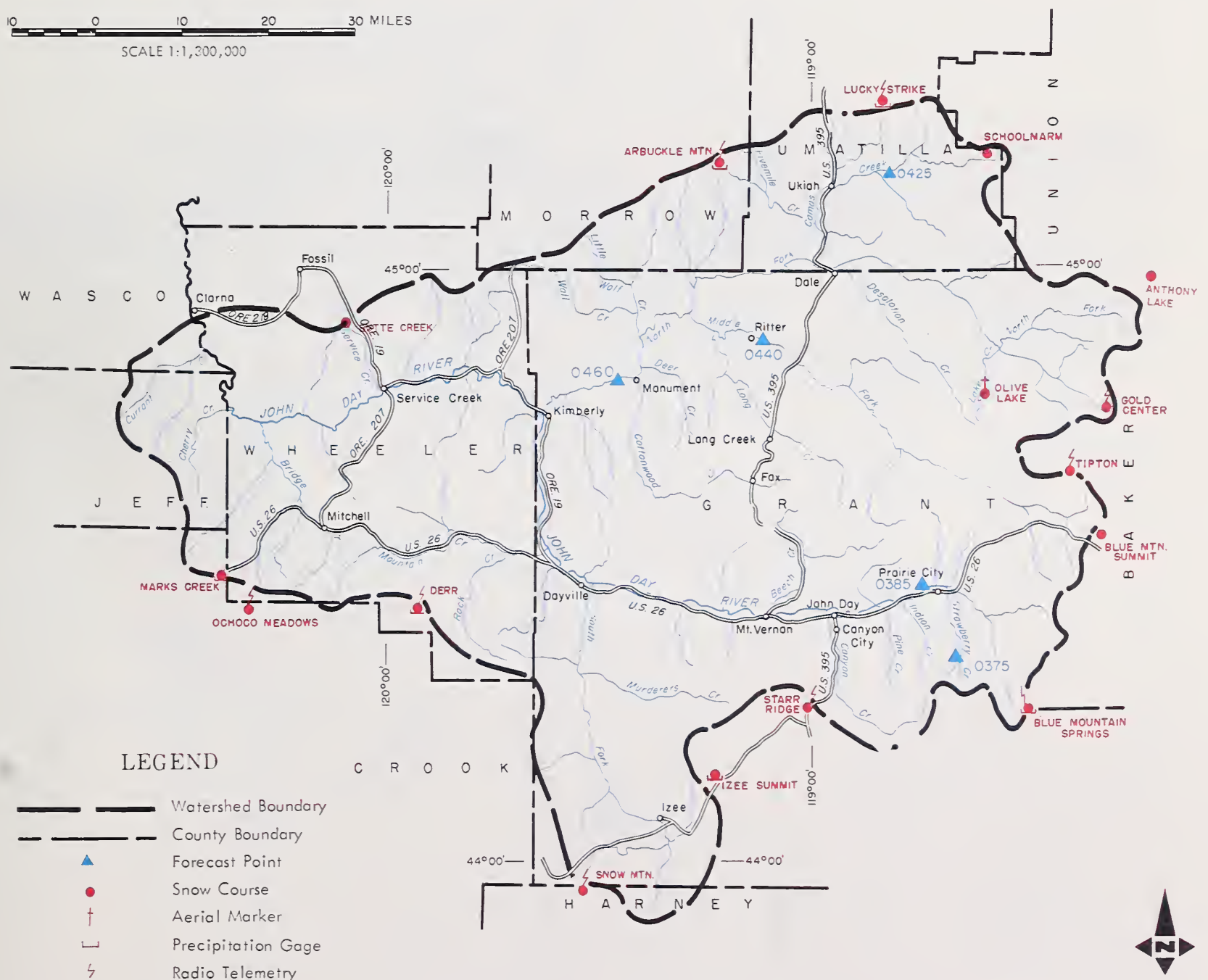
RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
McKay Creek	3	0	0
Umatilla River	3	17	25
Walla Walla River	3	17	21

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK UPPER JOHN DAY WATERSHEDS OREGON

GENERAL OUTLOOK

The water supply outlook is now below average for the John Day basin. The snowpack melted rapidly during April, but streamflow was only near average. The snow cover is now 40% of the May 1 average. Precipitation this past month was only half of normal. Forecasts for summer streamflow have been reduced 5 to 10% from a month ago.



STREAMFLOW FORECASTS

STREAMFLOW FORECASTS	THIS YEAR			PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Camas Creek near Ukiah	14.9	91	May-July		16.4
John Day, Middle Fork at Ritter	51	71	May-July		72
	54	71	May-Sept.		76
John Day, North Fork at Monument	300	85	May-July		352
	310	84	May-Sept.		367
Mountain Creek nr. Mitchell	1.6	86	May-July		1.9 ^b
Strawberry near Prairie City	5.9	87	May-July		6.8
	6.6	89	May-Sept.		7.4

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
John Day at Service Creek	147	Aug. 1	Avg. value 212

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
John Day, North Fork	8	27	41
John Day abv. Dayville	4	19	28

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

UPPER DESCHUTES, CROOKED WATERSHEDS

OREGON

GENERAL OUTLOOK

The water supply outlook is about the same as one month ago. The snowpack in the Cascades is poor and only the high elevation courses had snow on May 1. Snowpack conditions are about what would be expected on June 1. Reservoir storage is good except for Crane Prairie (65% of normal for May 1) and Crescent Lake (48% of normal for May 1). There will probably be shortages for users of Crescent Lake water. Forecasts for summer streamflow are about the same as last month and are expected to be much below to below average.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average	PERIOD	Last Year Average ^c
Beaver Creek near Paulina	4.4	90	May-July	4.9
	4.5	90	May-Sept.	5.0
Crane Prairie Reservoir total Inflow	45	70	May-July	64
	74	70	May-Sept.	106
Crescent at Crescent Lake	9.0	58	May-July	15.5
	11.5	58	May-Sept.	19.8
Crooked River nr. Prineville	30	86	May-July	35
Crooked R.No.Fk. blw. Lookout Cr.nr. Paulina	3.2	74	May-July	4.3 ^b
Deschutes at Benham Falls	322	80	May-July	403
	518	80	May-Sept.	648
Deschutes below Snow Creek	46	80	May-Sept.	57
Deschutes, Little near La Pine	33	59	May-July	56
	42	63	May-Sept.	67
Ochoco Reservoir net Inflow	8.0	93	May-Sept.	8.6
Squaw near Sisters	36	80	May-Sept.	45
Tumalo near Bend	33	80	May-Sept.	41
Deschutes at Bend	153	--	Aug.-Sept.	--

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Crane Prairie net Inflow	381	Peak	
	230	Oct. 31	
	Peak	May 28	
Crooked R. near Post	100	June 2	June 1
Deschutes at Bend	1500	*	July 1
*Will not reach 1500.			
Little Deschutes nr. La Pine	400	*	June 7
*Will not reach 400.			
	200	May 26	July 8
Squaw Cr. nr. Sisters	100	Aug. 2	Aug. 16

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Crane Prairie	55.3	29.7	40.9	45.8
Crescent Lake	86.9	32.0	46.2	66.5
Ochoco	47.5	46.9	43.4	37.8
Prineville	153.0	160.7	157.0	145.0
Wickiup	200.0	182.2	200.6	189.4

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Crooked, Ochoco	1	0	0
Deschutes abv. Wickiup	2	95	72
Little Deschutes	4	75	52
Tumalo & Squaw Crs.	3	102	62
Shitike Creek	2	88	44

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

OREGON

GENERAL OUTLOOK

The water supply outlook is now below average. The snowpack is 77% of average. Most of the snow is only at the highest elevations. Much melt occurred during April with little contribution to runoff. Streamflow is expected to be 85% of normal.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Hood River near Tucker Bridge	147	85	May-July		173
	186	85	May-Sept.		219
Hood, West Fork near Dee	76	88	May-July		87
	96	88	May-Sept.		109
White below Tygh Valley	69	85	May-July		81
	82	85	May-Sept.		96

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Clear Branch Inflow	*37	July 15-31	**39
*Average cfs forecast to flow for this two-week period.			
** Average cfs for period of record.			
White blw. Tygh Valley	200	June 24	July 3
	136	Aug. 1	Avg.value 145

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Clear Lake (Wasco)	11.9	3.6	1.5	6.7

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Hood River	3	76	77
Mile Creeks	-	--	--
White River	3	76	77

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

LOWER COLUMBIA WATERSHEDS

OREGON

GENERAL OUTLOOK

The flow of the Columbia River at The Dalles is forecast to be below normal this summer (80% of normal). The snow cover in the upper Columbia basin has deteriorated during the past month because of the high temperatures. The snow cover is now much below average with 67% of normal water content.



SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Sandy River	2	82	83

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Columbia at The Dalles	60,100	79	May-July		76,010
	72,500	80	May-Sept.		90,980
Sandy River near Marmot	184	80	May-July		230
	228	80	May-Sept.		285

HISTORICAL DATA (Columbia River at The Dalles)

YEAR	STREAMFLOW ^a (1,000 A F)			REGULATED PEAK (1,000 cfs)	DATE
	APR — SEPT.	APR — JUNE	MAY — JUNE		
1958	97,700	72,000	58,600	593	May 31
1959	112,500	71,900	58,900	555	June 23
1960	97,000	64,000	48,000	442	June 6
1961	101,400	74,400	64,000	699	June 8
1962	94,600	64,100	49,200	460	June 5
1963	87,000	56,300	46,200	437	June 18
1964	109,020	70,739	61,313	662	June 18
1965	114,137	80,024	62,477	520	June 9
1966	87,268	58,120	45,922	396	June 12
1967	107,771	72,408	65,112	622	June 10
1968	89,000	55,500	47,900	404	June 13
1969	112,300	85,700	63,800	515	May 15
1970	88,100	62,800	55,200	425	May 28
1971	122,900	88,400	73,700	557	May 13
1972	134,700	96,400	81,400	619	June 20
1958-72 Avg.	104,300	72,900	59,900	529	

LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

VANCOUVER GAGE (Weather Bu)	FLOW AT THE DALLES (1,000 c.f.s.)	DRAINAGE DISTRICT PUMPHOUSE						
		SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
		RIVER MILES						
		118.9	96.0	91.0	77.0	62.0	52.0	47.0
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32 (1972)	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

WATER SUPPLY OUTLOOK

WILLAMETTE WATERSHEDS

OREGON

Area 8

GENERAL OUTLOOK

The water supply outlook is expected to be adequate on major streams. Streams heading at the lower elevations in the Cascades will provide much below normal supplies. The snow cover is very poor and occurs mostly along the crest of the Cascades. The snowpack ranges from 3% on the Clackamas to 49% on the Upper Willamette. Forecasts of streamflow have been reduced from last month. Reservoired water will be adequate for users.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Clackamas at Estacada	324	70	May-July		464
	405	70	May-Sept.		579
Clackamas above Three Lynx	258	72	May-July		358
	328	72	May-Sept.		455
McKenzie at McKenzie Bridge	253	75	May-July		338
	363	75	May-Sept.		484
McKenzie near Vida	514	70	May-July		735
	679	70	May-Sept.		970
McKenzie, So. Fork near Rainbow	108	75	May-July		144
	128	75	May-Sept.		171
Oak Grove Fork above Power Intake	71	73	May-July		97
	97	73	May-Sept.		133
Row near Dorena	36	70	May-July		52
	40	70	May-Sept.		57
Santiam, North at Mehama	224	64	May-July		506
	393	64	May-Sept.		614
Santiam, South at Waterloo	220	68	May-July		323
	249	68	May-Sept.		366
Willamette, Coast Fork nr. London	9.7	70	May-July		13.8
Willamette, Mid.Fk. blw. N.Fk. nr. Oakridge	300	69	May-July	474	434
	428	70	May-Sept.	552	612
Willamette, No.Fk. of Mid.Fk. near Oakridge	82	66	May-July		125
	100	68	May-Sept.		146
Willamette at Salem	1,788	70	May-July		2,554
	2,127	70	May-Sept.		3,038

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Clackamas River	2	3	3
McKenzie River	3	75	48
Row River	2	51	36
Santiam River	4	49	30
Willamette, Mid. Fk.	4	64	49

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Blue River	85.6*	72.2	73.4	74.9
Cottage Grove	30.0*	23.5	24.1	23.4
Cougar	155.2*	129.6	135.6	109.2
Detroit	299.9*	264.7	275.3	231.2
Dorena	70.5*	53.4	53.9	55.7
Fall Creek	115.0*	98.9	99.0	95.2
Fern Ridge	94.2*	95.6	95.3	83.9
Foster	30.0*	7.0	7.6	16.6 ^b
Green Peter	270.0*	233.4	231.6	209.1
Hills Creek	200.0*	179.4	176.2	146.3
Lookout Point	337.2*	219.1	299.4	227.4
Timothy Lake	61.7	45.1	40.6	60.4
Henry Hagg Lake	53.0	52.2	53.6	--
* Multiple purpose reservoir--space reserved primarily for flood runoff.				

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

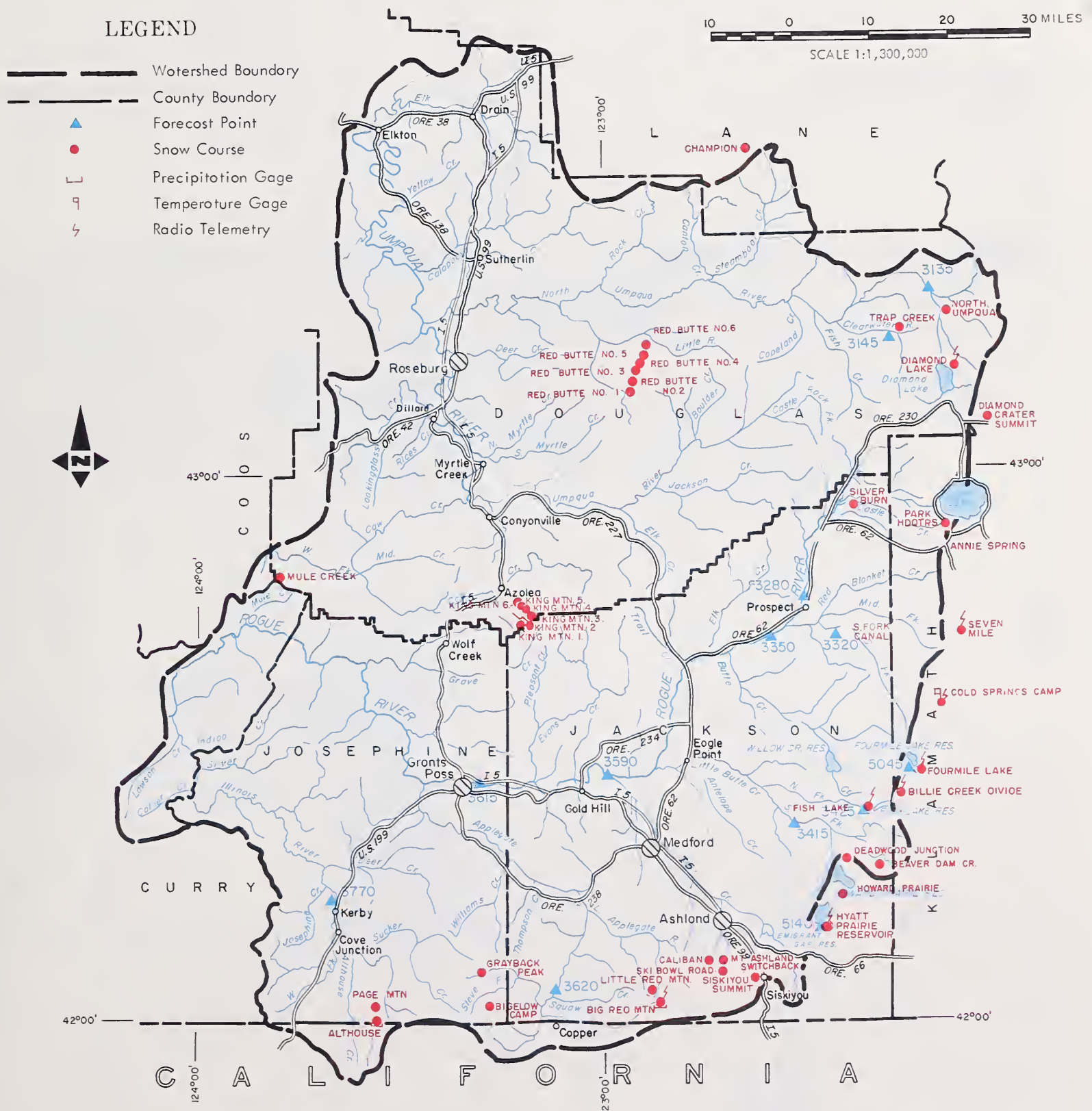
WATER SUPPLY OUTLOOK

ROGUE, UMPQUA, WATERSHEDS

OREGON

GENERAL OUTLOOK

The water supply outlook is much below average except for users with stored water available. The snow cover in the Cascades continues to be very poor. Snow exists only at the high elevation courses. The snowpack is 50% of average on the Rogue and 18% on the Umpqua. Reservoir storage is generally good. Streamflow will drop off more rapidly than normal as we progress into the early summer. Streamflow volumes are expected to be much below normal.



STREAMFLOW FORECASTS

STREAMFLOW FORECASTS	THIS YEAR			PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Applegate near Copper	63	78	May-July	456 593	81
	69	78	May-Sept.		88
Clearwater above Trap Creek	50	85	May-Sept.		59
Fourmile Lake net Inflow	2.0	69	May-July		2.9
Hyatt Reservoir net Inflow	2.0	74	May-July		2.7
Illinois River near Kerby	58	70	May-July		83
	63	70	May-Sept.		90
Little Butte, N.Fk. at Fish Lake nr. Lake Cr.	9.0	76	May-Sept.		11.9
Little Butte, S.Fk. near Lake Creek	13.0	70	May-July		18.5
	16.0	76	May-Sept.		21
Red Blanket Creek nr. Prospect	19.8	76	May-July		27
Rogue above Prospect	121	64	May-July		190
	164	66	May-Sept.		247
Rogue, South Fork near Prospect	29	60	May-July		48
	39	66	May-Sept.		59
Rogue at Raygold near Central Point	316	62	May-July		512
	432	64	May-Sept.		675
Rogue at Grants Pass	399	62	May-Sept.		644
Umpqua, No. blw. Lemolo Res. nr. Toketee Falls	118	82	May-Sept.		144
Umpqua, So. near Tiller	72	70	May-July	104	
So.Fk. Big Butte Cr. nr. Butte Falls	26	78	May-Sept.	33	

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Little Butte Creek, South Fork	100	May 9	May 15
South Umpqua nr. Tiller	140	June 28	July 10
	90	July 15	July 30
	60	Aug. 4	Aug. 27

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Emigrant Lake	39.0	38.9	39.0	37.1
Fish Lake	8.0	5.6	5.8	6.4
Fourmile Lake	16.1	9.0	8.9	11.5
Howard Prairie	60.0	60.6	51.8	52.8
Hyatt Prairie	16.1	16.1	15.7	14.6
Lost Creek	315.0	176.1	303.4	--

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Applegate	-	--	-
Bear Creek	2	123	80
Butte Creek	4	67	24
Illinois River	-	-	-
North Umpqua	3	58	18
Rogue River	4	97	51

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

GENERAL OUTLOOK

LEGEND



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Clear Lake Reservoir Inflow	14.0	80	May-Sept.		17.5
Gerber Reservoir Inflow	4.3	80	May-Sept.		5.4
Sprague near Chiloquin	126	76	May-Sept.		167
Upper Klamath Lake net Inflow	233	68	May-Sept.	222	342
Williamson below Sprague River	171	60	May-Sept.	191	285

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Clear Lake	440.2	226.5	180.1	294.2
Gerber	94.0	64.3	48.3	76.8
Upper Klamath Lake	584.0	503.3	484.7	467.7

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Lost River	2	73	81
Sprague River	2	0	0
Upper Klamath	5	85	39
Williamson River	3	58	27

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

GENERAL OUTLOOK

10 0 10 20 30 MILES

SCALE 1:1,500,000



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Chewaucan near Paisley	54	93	May-July	28	58
	56	90	May-Sept.	30	62
Cottonwood Creek nr. Lakeview	6.0	93	May-July		6.4
Deep above Adel	58	125	May-July		46
	60	125	May-Sept.		48
Drews Reservoir net Inflow	9.7	92	May-July		10.6
Honey Creek near Plush	15.0	121	May-July		12.4
	15.2	121	May-Sept.		12.6
Silver Creek near Silver Lake	4.9	60	May-July		8.1
Twentymile near Adel	11.4	100	May-Sept.		11.4
Bridge Cr. @ Spahr Ranch nr. Silver Lake	2.0	70	May-July		2.9

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Honey Creek nr. Plush	100	May 31	May 15
	50	June 18	May 30

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Cottonwood	8.7	8.7	6.1	6.2
Drews	63.0	63.0	46.6	59.0
Thompson Valley	19.5	12.1	10.6	--

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

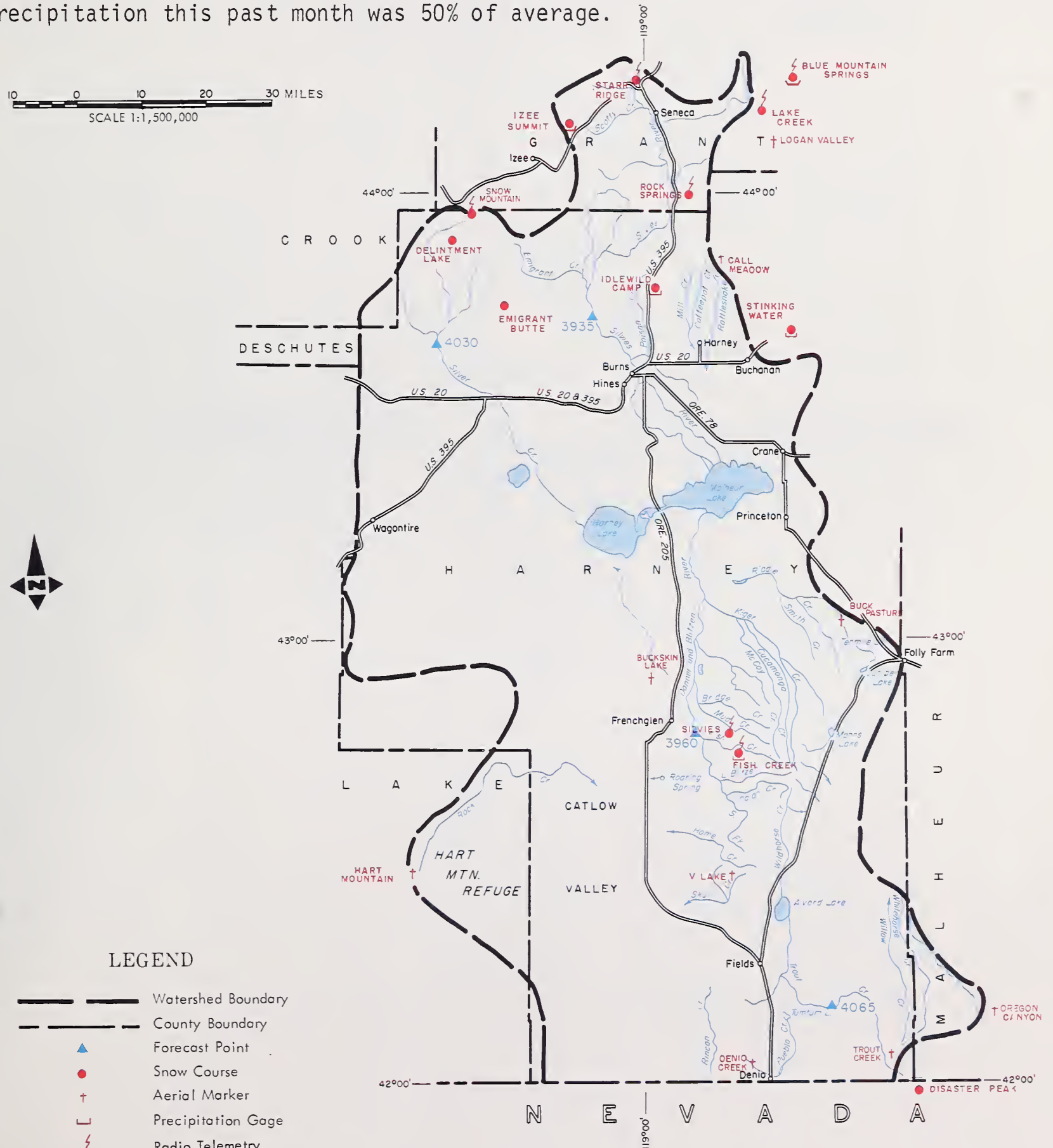
RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Chewaucan River	2	0	0
Deep Creek	3	70	78
Drew Creek	2	0	0
Honey Creek	1	0	0
Silver Creek	1	0	0
Twentymile Creek	-	--	-

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK HARNEY BASIN WATERSHEDS OREGON

GENERAL OUTLOOK

The water supply outlook in Harney County is expected to be good. The snowpack in the Steens is excellent. The snow cover on the Silvies drainage is 42% of average for May 1 with much melt occurring in April. Late season shortages may occur on the Silvies and Silver Creek if the recent warm dry trend continues. Precipitation this past month was 50% of average.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average	FORECAST PERIOD	Last Year Average ^c
Donner und Blitzen near Frenchglen	47	115	May-July	41
	53	115	May-Sept.	46
Silver near Riley	5.0	85	May-July	5.9
Silvies River near Burns	36	96	May-July	38
	38	96	May-Sept.	40
Trout Creek near Denio	6.8	105	May-July	6.5
	7.0	100	May-Sept.	7.0

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Silvies nr. Burns	400	May 5	May 5
	200	May 20	May 21
	100	June 10	June 9
	50	June 24	June 23
Donner und Blitzen	200	June 23	June 15
	100	July 15	July 5

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Donner und Blitzen R.	-	-	-
Silver Creek	-	-	-
Silvies River	4	22	42
Trout Creek	-	-	-

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

MAY 1, 1980

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR		PAST RECORD		
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
LOWER COLUMBIA WATERSHED					
Blazed Alder Pillow(T)		N/R			
Blazed Alder Pillow(S)	----				
Blazed Alder Pillow(M)	----				
Mt. Hood Test Site (T)	5/1	--	62.0	42.4	68.3 ^b
Mt. Hood Test Site (S)	5/2	120	59.5	64.4	63.3 ^b
Mt. Hood Test Site (M)	5/2	--	65.2	42.6	--
Mud Ridge Pillow(T)	5/1	--	18.2	25.7	--
Mud Ridge Pillow(S)	4/29	38	15.1	19.5	30.3
Mud Ridge Pillow(M)	4/29	--	20.0	27.0	--
No. Fork Res. (T)	5/1	--	1.1	9.9	--
No. Fork Res. (S)	----				
No. Fork Res. (M)	----				
Still Creek	4/29	32	12.8	24.2	24.1
WILLAMETTE WATERSHEDS					
Cascade Summit	4/29	24	9.3	20.7	27.4
Cascade Summit Pillow(T)	----				
Cascade Summit Pillow(S)	4/29	40	16.1	28.5	--
Cascade Summit Pillow(M)	4/29	--	14.5	--	--
Champion	4/29	11	5.0	23.0	30.6
Clackamas Lake		^e			
Clackamas Lake Plw.(S)		^e			
Clackamas Lake Plw.(M)		^e			
Clear Lake	4/29	1	0.6	7.1	7.3
Clear Lake Pillow(S)	4/29	14	5.5	16.6	--
Clear Lake Pillow(M)	----				
Clear Lake Expt.	4/29	14	5.5	16.6	11.4 ^b
Daly Lake Plw. (T)	----				
Daly Lake Plw. (S)	4/30	0	0.0	--	--
Daly Lake Plw. (M)	4/30	--	0.0	--	--
Dead Horse Grade	4/27	0	0.0	5.9	14.0
Golden Curry Creek	4/29	0	0.0	0.0	1.3
Hogg Pass	5/1	46	19.8	33.7	42.4
Hogg Pass Pillow(T)	5/1	--	23.2	27.2	--
Hogg Pass Pillow(S)	5/1	54	22.9	37.2	--
Hogg Pass Pillow(M)	5/1	--	24.0	30.6	--
Holland Meadows Plw.(S)	4/30	13	5.6	--	--
Holland Meadows Plw.(M)	4/30	--	2.4	--	--
Jump Off Joe Pillow(T)	5/1	--	0.0	0.0	--
Jump Off Joe Pillow(S)	5/1	0	0.0	0.0	--
Jump Off Joe Pillow(M)	5/1	--	0.0	0.0	--
Layng Creek		^e			
Little Meadows Plw.(T)	----				
Little Meadows Plw.(S)	4/30	0	0.0	--	--
Little Meadows Plw.(M)	4/30	--	0.0	--	--
Lost Creek Ranch		^e			
Lund Park		^e			
Marion Forks	5/1	0	0.0	0.0	7.2
Marion Forks Pillow(T)	----				
Marion Forks Pillow(S)	5/1	0	0.0	0.0	--
Marion Forks Pillow(M)	5/1	--	0.0	0.1	--
Marys Peak		^e			
McCredie Springs	4/29	0	0.0	0.0	--
McKenzie	4/27	65	30.2	34.5	48.1
McKenzie Pillow(S)	4/27	62	27.7	32.2	--
McKenzie Pillow(M)	4/27	--	25.4	--	--
Mt. Hood Test Site(T)	5/1	--	62.0	42.4	68.3 ^b
Mt. Hood Test Site(S)	5/2	120	59.5	64.4	63.3 ^b
Mt. Hood Test Site(M)	5/2	--	65.2	42.6	--
Peavine Ridge Pillow(T)	----			13.7 ^a	14.5 ^b
Peavine Ridge Pillow(S)	5/4	0	0.0	--	--
Peavine Ridge Pillow(M)	----	0	0.0	0.0	--
Railroad Overpass	4/29	0	0.0	0.0	--
Railroad Overpass Plw.(T)	----				
Railroad Overpass Plw.(S)	4/29	0	0.0	0.0	--
Railroad Overpass Plw.(M)	4/29	--	0.0	0.0	--
Roaring River Plw.(T)	----				
Roaring River Plw.(S)	4/30	27	11.0	--	--
Roaring River Plw.(M)	4/30	--	14.5	--	--
Saddle Mtn. Pillow(T)	5/1	--	0.0	--	3.2 ^b
Saddle Mtn. Pillow (S)	----				
Saddle Mtn. Pillow(M)	----				

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR		PAST RECORD		
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
WILLAMETTE WATERSHEDS (CONT.)					
Salt Creek Falls	4/29	0	0.0	8.8	12.9
Salt Creek Falls Plw.(S)	4/29	0	0.0	17.1	--
Salt Creek Falls Plw.(M)	4/29	----	0.0	--	--
Santiam Junction	5/1	0	0.0	7.0	16.2
Santiam Junction Plw.(T)	5/1	--	0.0	7.7	--
Santiam Junction Plw.(S)	5/1	0	0.0	8.2	--
Santiam Junction Plw.(M)	5/1	--	0.0	4.8	--
Seine Creek Pillow(T)		N/R			
Seine Creek Pillow(S)	----				
Seine Creek Pillow(M)	----				
Still Creek	4/29	32	12.8	24.2	24.1
Summit Lake Pillow(T)	----			28.1	--
Summit Lake Pillow(S)	4/29	75	30.4	32.0	40.6 ^b
Summit Lake Pillow(M)	4/29	--	31.2	27.7	--
Timothy Lake	4/25	21	7.8	9.1	12.4 ^b
Waldo Lake		^e			
Weaver Creek	4/29	0	0.0	0.0	--
White Branch Slide	4/27	0	0.0	--	0.4
Whitewater Bridge	5/1	0	0.0	0.0	--
ROGUE, UMPQUA WATERSHEDS					
Althouse		^e			
Annie Spring	4/29	81	35.0	29.5	45.8
Beaver Dam Creek	5/1	0	0.0	0.0	7.6 ^b
Big Red Mountain		^e			
Big Red Mountain Plw.(T)		^e			
Big Red Mountain Plw.(S)		^e			
Big Red Mountain Plw.(M)		^e			
Billie Creek Divide	4/25	19	8.1	6.5	14.3
Billie Cr. Div. Pillow(T)	----			8.0	--
Billie Cr. Div. Pillow(S)	4/25	17	6.0	7.0	--
Billie Cr. Div. Pillow(M)	4/25	--	9.3	7.3	--
Caliban	4/26	80	33.8	22.8	38.9 ^b
Caliban (Alternate)	4/26	74	29.8	25.2	--
Champion	4/29	11	5.0	23.0	30.6
Cold Springs Camp	4/29	52	23.2	22.0	35.7 ^b
Cold Springs Camp Plw.(T)	----			--	30.5 ^b
Cold Springs Camp Plw.(S)	4/29	21	9.8	12.5	--
Cold Springs Camp Plw.(M)	4/29	--	10.6	11.9	--
Deadwood Junction	5/1	0	0.0	0.0	3.1 ^b
Diamond-Crater Summit	4/28	45	18.6	20.7	30.7
Diamond Lake	4/28	13	5.6	9.6	18.2
Diamond Lake Pillow(S)	4/28	0	0.0	9.1	--
Diamond Lake Pillow(M)	4/28	--	0.0	--	--
Fish Lake	4/25	0	0.0	5.3	7.9 ^b
Fish Lake Pillow(T)	----				
Fish Lake Pillow(S)	4/25	0	0.0	0.0	--
Fish Lake Pillow(M)	4/25	--	0.0	--	--
Fourmile Lake	4/25	36	14.5	13.0	21.9 ^b
Fourmile Lake Pillow(T)	----			15.6	--
Fourmile Lake Pillow(S)	4/25	49	20.0	16.7	--
Fourmile Lake Pillow(M)	4/25	--	19.7	14.9	--
Grayback Peak		^e			
Howard Prairie Reservoir	5/1	0	0.0	0.0	2.6 ^b
Hyatt Prairie	5/1	0	0.0	0.0	3.4 ^b
Hyatt Prairie Pillow(T)	----				
Hyatt Prairie Pillow(S)	5/1	0	0.0	0.0	--
Hyatt Prairie Pillow(M)	----				
King Mountain #1	4/28	0	0.0	0.0	6.2 ^b
King Mountain #2	4/28	0	0.0	0.0	3.1 ^b
King Mountain #2 Plw.(T)	----				
King Mountain #2 Plw.(S)	----				
King Mountain #2 Plw.(M)	----				
King Mountain #3	4/28	0	0.0	0.0	--
King Mountain #4	4/28	0	0.0	0.0	--
King Mountain #5	4/28	0	0.0	0.0	--
King Mountain #6	4/28	0	0.0	0.0	--
Little Red Mountain		^e			
Mt. Ashland Switchback	4/28	75	30.0	24.3	37.1 ^b
Mule Creek	4/28	0	0.0	0.0	2.8 ^b
North Umpqua	5/1	0	0.0	0.0	7.3
Page Mountain		^e			
Park Headquarters	4/30	120	51.6 ^a	44.8	63.7

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

MAY 1, 1980

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. C
ROGUE, UMPQUA WATERSHEDS (CONT.)					
Red Butte #1	4/28	0	0.0	0.0	13.8
Red Butte #2	4/28	0	0.0	0.0	5.5
Red Butte #3	4/28	0	0.0	0.0	1.0
Red Butte #4	4/28	0	0.0	0.0	--
Red Butte #5	4/28	0	0.0	0.0	--
Red Butte #6	4/28	0	0.0	0.0	--
Seven Mile		e			
Seven Mile Pillow(T)		e			
Seven Mile Pillow(S)		e			
Seven Mile Pillow(M)		e			
Silver Burn	5/1	0	0.0	0.0	3.5
Siskiyou Summit	4/25	0	0.0	0.0	--
Ski Bowl Road	4/28	44	17.4	16.8	26.0
South Fork Canal	5/1	0	0.0	0.0	--
Trap Creek	5/1	0	0.0	0.0	5.8
KLAMATH WATERSHEDS					
Annie Spring	4/29	81	35.0	29.5	45.8
Billie Creek Divide	4/25	19	8.1	6.5	14.3
Billie Cr. Div. Plw.(T)	----			8.0	--
Billie Cr. Div. Plw.(S)	4/25	17	6.0	7.0	--
Billie Cr. Div. Plw.(M)	4/25	--	9.3	7.3	--
Chemult Alternate	5/1	0	0.0	0.0	1.8
Chemult Alternate Plw.(S)	5/1	0	0.0	--	--
Chemult Alternate Plw.(M)	5/1	--	0.0	--	--
Chiloquin (PP&L)		e			
Cold Springs Camp	4/29	52	23.2	22.0	35.7
Cold Springs Camp Plw.(T)	----				
Cold Springs Camp Plw.(S)	4/29	21	9.8	12.5	38.3
Cold Springs Camp Plw.(M)	4/29	--	10.6	11.9	--
Crazyman Flat *	4/25	8	3.6	4.1	5.9
Crowder Flat (Calif.) *		e			
Crystal (PP&L)		e			
Diamond-Crater Summit	4/28	45	18.6	20.7	30.7
Dog Hollow *		e			
Finley Corrals	4/25	24	10.8	9.0	8.8
Fort Klamath (PP&L)		e			
Fourmile Lake	4/25	36	14.5	13.0	21.9
Fourmile Lake Pillow(T)	----			15.6	--
Fourmile Lake Pillow(S)	4/25	49	20.0	16.7	16.6
Fourmile Lake Pillow(M)	4/25	--	19.7	14.9	15.3
Gerber		e			
Harriman (PP&L)		e			
Howard Prairie	5/1	0	0.0	0.0	2.6
Hyatt Prairie Reservoir	5/1	0	0.0	0.0	3.4
Hyatt Prairie Res.Plw.(T)	----				
Hyatt Prairie Res.Plw.(S)	5/1	0	0.0	0.0	--
Hyatt Prairie Res.Plw.(M)	----				
Kirk (PP&L)		e			
Park Headquarters	4/30	120	51.6 ^a	44.8	63.7
Quartz Mountain	4/29	0	0.0	0.0	1.0
Quartz Mtn. Pillow(T)	----				
Quartz Mtn. Pillow(S)	4/29	0	0.0	0.0	--
Quartz Mtn. Pillow(M)	4/29	--	0.0	0.0	--
Seven Mile		e			
Seven Mile Pillow(T)		e			
Seven Mile Pillow(S)		e			
Seven Mile Pillow(M)		e			
State Line (Calif.) *		e			
Strawberry	4/28	0	0.0	0.0	2.4
Strawberry Pillow(S)	4/28	0	0.0	0.0	--
Strawberry Pillow(M)	4/28	--	0.0	0.0	--
Summer Rim *	4/25	36	16.2	13.1	14.5
Summer Rim		e			
Summer Rim Pillow(T)		e			
Summer Rim Pillow(S)		e			
Summer Rim Pillow(M)		e			
Sycan Flat *		e			
Taylor Butte	4/30	0	0.0	0.0	--
Taylor Butte Pillow(T)	5/1	--	0.0	0.0	--
Taylor Butte Pillow(S)	4/30	0	0.0	0.0	--
Taylor Butte Pillow(M)	4/30	--	0.0	0.0	--

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
LAKE COUNTY, GOOSE LAKE WATERSHEDS					
Adin Mountain (Calif.)	4/23	24	9.6	8.1	7.3
Bald Mountain (Nev.)		e			
Bear Flat Meadow *		e			
Camas Creek #1	4/29	0	0.0	0.8	3.1
Camas Creek #2	4/29	1	0.5	2.9	--
Cedar Pass (Calif.)	4/29	32	14.3	19.6	14.4
Colvin Creek *		e			
Cox Flat *		e			
Crowder Flat (Calif.) *		e			
Dismal Swamp (Calif.) *		e			
Dismal Swamp #2 Plw.(S)	4/30	62	25.8	--	--
Dismal Swamp #2 Plw.(M)	4/30	--	26.1	--	--
Finley Corrals *	4/25	24	10.8	9.0	8.8 ^b
Hart Mountain *		e			
Little Bally Mtn.(Nev.) *		e			
Mt. Bidwell (Calif.)		N/R			
North Star (Calif.)		N/R			
Patton Meadows *	4/25	44	19.8	11.1	13.8 ^b
Quartz Mountain	4/29	0	0.0	0.0	1.0
Quartz Mountain Plw.(T)	----				
Quartz Mountain Plw.(S)	4/29	0	0.0	0.0	--
Quartz Mountain Plw.(M)	4/29	--	0.0	0.0	--
Rogger Meadows *		e			
Sherman Valley *		e			
Silver Creek		e			
Silver Creek Pillow(S)		e			
Silver Creek Pillow(M)		e			
State Line (Calif.) *		e			
Strawberry	4/28	0	0.0	0.0	2.4
Strawberry Pillow(S)	4/28	0	0.0	0.0	--
Strawberry Pillow(M)	4/28	--	0.0	0.0	--
Summer Rim *	4/25	36	16.2	13.1	14.5 ^b
Summer Rim		e			
Summer Rim Pillow(T)		e			
Summer Rim Pillow(S)		e			
Summer Rim Pillow(M)		e			
Sycan Flat *		e			
HARNEY BASIN WATERSHEDS					
Blue Mountain Springs	4/29	15	6.4	14.5	11.1
Blue Mtn. Spgs. Plw.(T)	4/29	--	9.9	19.0	--
Blue Mtn. Spgs. Plw.(S)	4/29	18	9.0	15.0	6.8 ^b
Blue Mtn. Spgs. Plw.(M)	4/29	--	9.6	20.3	9.0 ^b
Buck Pasture *		e			
Buckskin Lake *		e			
Call Meadows *		e			
Delintment Lake		e			
Denio Creek *		e			
Disaster Peak (Nev.)		N/R			
Emigrant Butte		e			
Fish Creek *		e			
Fish Creek		e			
Fish Creek Pillow(T)		e			
Fish Creek Pillow(S)		e			
Fish Creek Pillow(M)		e			
Hart Mountain *		e			
Idlewild Camp Alt.	4/30	0	0.0	0.0	0.5 ^b
Izee Summit	4/29	0	0.0	6.5	2.4
Lake Creek R.S.	4/29	0	0.0	2.6	3.4 ^b
Lake Creek R.S. Plw.(T)	4/29	--	0.0	5.6	--
Lake Creek R.S. Plw.(S)	4/29	0	0.0	4.7	--
Lake Creek R.S. Plw.(M)	4/29	--	0.0	3.7	--
Oregon Canyon *		e			
Rock Spring	4/29	0	0.0	0.0	0.6
Rock Spring Pillow(T)	----				
Rock Spring Pillow(S)	4/29	0	0.0	0.0	--
Rock Spring Pillow(M)	4/29	--	0.0	0.0	--
Silvies *		e			
Silvies		e			
Silvies Pillow(T)		e			
Silvies Pillow(S)		e			
Silvies Pillow(M)		e			
Snow Mountain		e			
Snow Mountain Plw.(T)		e			
Snow Mountain Plw.(S)		e			
Snow Mountain Plw.(M)		e			
Starr Ridge	4/29	0	0.0	1.8	1.2
Starr Ridge Pillow(T)	----				
Starr Ridge Pillow(S)	4/29	0	0.0	0.0	--
Starr Ridge Pillow(M)	4/29	--	0.0	0.0	--
Stinking Water	5/1	0	0.0	0.0	--
Trout Creek		e			
"V" Lake		e			

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

MAY 1, 1980

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. C
OWYHEE, MALHEUR WATERSHEDS					
Antelope Ridge (Ida.)		e			
Battle Creek (Ida.) *		e			
Bear Creek (Nev.)	5/2	38	15.2	23.1	21.3
Big Bend (Nev.)	5/2	0	0.0	5.0	2.5
Blue Mountain Springs	4/29	15	6.4	14.5	11.1
Blue Mtn. Spgs. Plw.(T)	4/29	--	9.9	19.0	--
Blue Mtn. Spgs. Plw.(S)	4/29	18	9.0	15.0	6.85
Blue Mtn. Spgs. Plw.(M)	4/29	--	9.6	20.3	9.05
Boulder Creek *		e			
Buck Pasture *		e			
Buckskin, Lower (Nev.)		N/R			
Buckskin, Upper (Nev.)		N/R			
Bull Basin (Ida.) *		e			
Bully Creek *		e			
Call Meadows *		e			
Columbia Basin (Nev.)		N/R			
Disaster Peak (Nev.)		N/R			
Eldorado Pass	4/30	0	0.0	0.0	--
Fawn Creek (Nev.) #2	5/2	14	6.0	--	--
Fish Creek *		e			
Fish Creek		e			
Fish Creek Pillow(T)		e			
Fish Creek Pillow(S)		e			
Fish Creek Pillow(M)		e			
Flag Prairie *		e			
Fox Creek (Nev.)		N/R			
Fry Canyon (Nev.)	5/2	0	0.0	0.0	1.5
Gold Creek (Nev.)	5/2	0	0.0	--	1.0
Granite Peak (Nev.)		N/R			
Hyde Pasture (Ida.) *		e			
Jack Creek, Lower (Nev.)	5/2	0	0.0	0.0	1.45
Jack Creek, Upper (Nev.)	5/2	0	0.0	9.0	4.75
Jack Peak (Nev.)	5/2	55	23.9	27.4	26.8
Lake Creek R.S.	4/29	0	0.0	2.6	3.45
Lake Creek R.S. Plw.(T)	4/29	--	0.0	5.6	--
Lake Creek R.S. Plw.(S)	4/29	0	0.0	4.7	--
Lake Creek R.S. Plw.(M)	4/29	--	0.0	3.7	--
Laurel Draw (Nev.)	5/2	0	0.0	5.6	1.65
Logan Valley *		e			
Lookout Butte *		e			
Louse Canyon *		e			
Martin Creek (Nev.)		N/R			
Merritt Mountain (Nev.) *		N/R			
Midas (Nev.) *	5/2	0	0.0	--	--
Mud Flat (Ida.)		e			
Oregon Canyon *		e			
Quinn Ridge (Nev.) *		e			
Red Canyon (Ida.) *		e			
Rock Spring	4/29	0	0.0	0.0	0.6
Rock Spring Plw.(T)	----				
Rock Spring Plw.(S)	4/29	0	0.0	0.0	--
Rock Spring Plw.(M)	4/29	--	0.0	0.0	--
Rodeo Flat (Nev.)	5/2	0	0.0	3.3	1.5
76 Creek (Nev.) *	5/2	0	0.0	11.3	6.75
Silver City (Ida.)		e			
Silver City (Ida.) *		e			
Silvies *		e			
Silvies		e			
Silvies Pillow (T)		e			
Silvies Pillow (S)		e			
Silvies Pillow (M)		e			
South Mountain #2 (Ida.)	4/27	19	9.2	11.6	7.15
South Mtn. #2 Plw.(T)	5/1	--	3.3	10.2	--
Stag Mountain (Nev.) *		N/R			
Stinking Water	5/1	0	0.0	0.0	--
Succor Creek (Ida.) *		e			
Taylor Canyon (Nev.)	5/2	0	0.0	0.0	0.5
Toe Jam (Nev.) *	5/2	0	0.0	--	--
Tremewan Ranch (Nev.) *	5/2	0	0.0	0.0	--
Trout Creek *		e			
"V" Lake *		e			
Vaught Ranch (Ida.) *		e			
War Eagle (Ida.) *		e			

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS					
Aneroid Lake #2	4/28	65	28.2	27.8	36.5
Aneroid Lake #2 Plw.(S)	4/28	65	26.5	--	--
Aneroid Lake #2 Plw.(M)	----				
Anthony Lake	4/29	50	34.7	31.7	30.8
Bald Mountain (OR) *	4/26	43	19.4	35.6	23.7 ^b
Beaver Reservoir (Rev.)	5/2	0	0.0	8.4	10.2
Beaver Res. Pillow (S)	5/2	0	0.0	5.3	--
Beaver Res. Pillow (M)	----				
Bigelow Camp Pillow (S)		<i>e</i>			
Bigelow Camp Pillow (M)		<i>e</i>			
Big Sheep *	4/26	48	21.6	23.2	23.7
Blue Mtn. Summit	5/2	0	0.0	2.5	1.8 ^b
Bourne	5/2	0	0.0	11.1	7.7 ^b
Bourne Pillow (T)	5/1	--	6.4	21.6	--
Bourne Pillow (S)	5/2	8	3.2	16.9	--
Bourne Pillow (M)	5/2	--	4.3	21.1	--
County Line	5/1	0	0.0	0.1	1.2 ^b
County Line Pillow (T)	----				
County Line Pillow (S)	5/1	0	0.0	0.0	--
County Line Pillow (M)	5/1	--	0.0	0.0	--
Doolley Mountain	4/29	0	0.0	0.9	1.7
Eilertson Meadows	5/2	0	0.0	7.2	4.6 ^b
Eilertson Mdws.Plw.(S)	5/2	0	0.0	5.8	--
Eilertson Mdws.Plw.(M)	5/2	--	0.0	4.2	--
Eldorado Pass	4/30	0	0.0	0.0	--
Gold Center	5/2	0	0.0	7.0	4.5 ^b
Gold Center Pillow (T)	----				
Gold Center Pillow (S)	5/2	0	0.0	3.4	--
Gold Center Pillow (M)	5/2	--	0.0	4.1	--
Goodrich Lake		<i>e</i>			
Little Alps	4/29	25	8.3	15.3	14.5
Little Antone	4/29	0	0.0	0.0	--
Little Antone (Alt.)	4/29	0	0.0	2.8	--
Lucky Strike	5/1	0	0.0	16.2	7.8
Lucky Strike Pillow (T)	5/1	--	0.0	8.7	--
Lucky Strike Pillow (S)	5/1	0	0.0	6.2	--
Lucky Strike Pillow (M)	5/1	--	0.0	9.9	--
Meacham	5/1	0	0.0	3.8	2.9 ^b
Mirror Lake *	4/26	163	73.3	71.8	74.2 ^b
Moss Spring	4/26	45	23.2	32.8	24.6
Moss Spring Pillow (T)	----				
Moss Spring Pillow (S)	4/26	44	20.0	30.2	--
Moss Spring Pillow (M)	4/26	--	20.1	30.7	--
Mt. Howard Pillow (S)	4/26	41	18.5	25.8	--
Mt. Howard Pillow (M)	4/26	--	13.2	--	--
Schneider Meadow	4/26	45	22.0	26.8	26.5
Schneider Meadow Plw.(T)	----				
Schneider Meadow Plw.(S)	4/26	46	22.0	26.0	--
Schneider Meadow Plw.(M)	----			24.0	--
Schoolmarm	5/1	0	0.0	0.0	0.3
Standley *	4/26	98	44.1	43.1	35.7
Taylor Green	4/26	22	9.4	19.0	13.9 ^b
Taylor Green Pillow(T)	4/26	--	12.7	23.8	--
Taylor Green Pillow(S)	4/26	30	14.0	23.5	--
Taylor Green Pillow(M)	4/26	--	13.6	21.1	--
Tipton	5/2	0	0.0	0.0	1.6 ^b
Tipton Pillow (T)	----				
Tipton Pillow (S)	5/2	0	0.0	10.1	--
Tipton Pillow (M)	5/2	--	0.0	--	--
Tollgate	4/30	12	5.7	30.2	20.1 ^b
TV Ridge *	4/26	51	23.0	24.0	23.9 ^b
West Eagle Meadows *	4/26	38	17.1	25.8	--
Wolf Creek Pillow (T)	5/1	--	5.3	14.7	--
Wolf Creek Pillow (S)	5/2	11	4.5	17.8	--
Wolf Creek Pillow (M)	5/2	--	2.3	16.9	--
* Aerial					
N/R No Report					
TR Trace					
T = Telemetry Measurement					
S = Snow Tube Measurement					
M = Manometer Measurement					

* Aerial
N/R No Report
TR Trace
T = Telemetry Measurement
S = Snow Tube Measurement
M = Manometer Measurement

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

MAY 1, 1980

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS					
Arbuckle Mountain	5/1	0	0.0	11.3	2.6 ^b
Arbuckle Mtn. Plw.(T)	5/1	--	10.6	27.7	--
Arbuckle Mtn. Plw.(S)	5/1	19	8.4	25.6	--
Arbuckle Mtn. Plw.(M)	5/1	--	10.4	28.8	22.3 ^b
Blue Mountain Camp	4/30	0	0.0	2.8	6.6 ^b
Bowman Springs Plw.(T)	5/1	--	0.0	6.1	--
Bowman Springs Plw.(S)	5/1	0	0.0	4.6	--
Bowman Springs Plw.(M)	5/1	--	0.0	5.2	--
Butte Creek Summit		N/R			
Emigrant Springs	5/1	0	0.0	0.0	0.2 ^b
Emigrant Springs Plw.(S)	5/1	0	0.0	0.0	--
Emigrant Springs Plw.(M)	5/1	--	0.0	--	--
High Ridge Pillow(T)	5/1	--	18.8	29.4	--
High Ridge Pillow(S)	5/2	25	11.9	32.2	27.0
High Ridge Pillow(M)	5/2	--	14.3	28.0	25.1 ^b
Lucky Strike	5/1	0	0.0	16.2	7.8
Lucky Strike Pillow(T)	5/1	--	0.0	8.7	--
Lucky Strike Pillow(S)	5/1	0	0.0	6.2	--
Lucky Strike Pillow(M)	5/1	--	0.0	9.9	--
Madison Butte Pillow(T)	----				
Madison Butte Pillow(S)	5/1	0	0.0	2.8	--
Madison Butte Pillow(M)	5/1	--	0.0	0.7	--
Meacham	5/1	0	0.0	3.8	2.9 ^b
Tollgate	4/30	12	5.7	30.2	20.1 ^b
UPPER JOHN DAY WATERSHEDS					
Anthony Lake	4/29	50	34.7	31.7	30.8
Arbuckle Mountain	5/1	0	0.0	11.3	2.6 ^b
Arbuckle Mountain Plw.(T)	5/1	--	10.6	27.7	--
Arbuckle Mountain Plw.(S)	5/1	19	8.4	25.6	--
Arbuckle Mountain Plw.(M)	5/1	--	10.4	28.8	22.3 ^b
Blue Mountain Springs	4/29	15	6.4	14.5	11.1
Blue Mtn. Spgs. Plw.(T)	4/29	--	9.9	19.0	--
Blue Mtn. Spgs. Plw.(S)	4/29	18	9.0	15.0	6.8 ^b
Blue Mtn. Spgs. Plw.(M)	4/29	--	9.6	20.3	9.0 ^b
Blue Mountain Summit	5/2	0	0.0	2.5	1.8 ^b
Butte Creek Summit		N/R			
Derr		e			
Derr Pillow (T)		e			
Derr Pillow (S)		e			
Derr Pillow (M)		e			
Gold Center	5/2	0	0.0	7.0	4.5 ^b
Gold Center Plw.(T)	----				
Gold Center Plw.(S)	5/2	0	0.0	3.4	--
Gold Center Plw.(M)	5/2	--	0.0	4.1	--
Izee Summit	4/29	0	0.0	6.5	2.4
Lucky Strike	5/1	0	0.0	16.2	7.8
Lucky Strike Plw.(T)	5/1	--	0.0	8.7	--
Lucky Strike Plw.(S)	5/1	0	0.0	6.2	--
Lucky Strike Plw.(M)	5/1	--	0.0	9.9	--
Marks Creek	4/30	0	0.0	0.0	0.1
Ochoco Meadows		e			
Ochoco Mdws. Plw. (T)		e			
Ochoco Mdws. Plw. (S)		e			
Ochoco Mdws. Plw. (M)		e			
Olive Lake *	5/2	34	14.6	25.5	19.5 ^b
Schoolmarm	5/1	0	0.0	0.0	0.3
Snow Mountain		e			
Snow Mountain Plw.(T)		e			
Snow Mountain Plw.(S)		e			
Snow Mountain Plw.(M)		e			
Starr Ridge	4/29	0	0.0	1.8	1.2
Starr Ridge Plw.(T)	----				
Starr Ridge Plw.(S)	4/29	0	0.0	0.0	--
Starr Ridge Plw.(M)	4/29	--	0.0	0.0	--
Tipton	5/2	0	0.0	0.0	1.6 ^b
Tipton Pillow (T)	----				
Tipton Pillow (S)	5/2	0	0.0	10.1	6.9 ^b
Tipton Pillow (M)	5/2	--	0.0	--	--

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
UPPER DESCHUTES, CROOKED WATERSHEDS					
Bald Peter		N/R		--	35.5 ^b
Caldwell Ranch		<i>e</i>			
Cascade Summit	4/29	24	9.3	20.7	27.4
Cascade Summit Plw.(S)	4/29	40	16.1	28.5	--
Cascade Summit Plw.(M)	4/29	--	14.5	--	--
Chemult Alternate	5/1	0	0.0	0.0	1.8
Chemult Alt. Plw. (S)	5/1	0	0.0	--	--
Chemult Alt. Plw. (M)	5/1	--	0.0	--	--
Derr		<i>e</i>			
Derr Pillow (T)		<i>e</i>			
Derr Pillow (S)		<i>e</i>			
Derr Pillow (M)		<i>e</i>			
Hogg Pass	5/1	46	19.8	33.7	42.4
Hogg Pass Pillow (T)	5/1	--	23.2	27.2	--
Hogg Pass Pillow (S)	5/1	54	22.9	37.2	--
Hogg Pass Pillow (M)	5/1	--	24.0	30.6	--
Hungry Flat	4/27	0	0.0	0.0	--
Irish-Taylor Pillow(T)	----			25.6	--
Irish-Taylor Pillow(S)	4/30	70	26.9	30.9	--
Irish-Taylor Pillow(M)	4/30	--	30.3	24.4	--
Lionshead *	5/2	8	3.2	3.6	--
Marks Creek	4/30	0	0.0	0.0	0.1
New Crescent Lake	4/29	0	0.0	0.0	6.2
New Crescent Lake Plw.(S)	4/29	0	0.0	0.0	--
New Crescent Lake Plw.(M)	4/29	--	0.0	--	--
New Dutchman Flat #2	4/29	93	44.2	38.9	55.9
Ochoco Meadows		<i>e</i>			
Ochoco Meadows Plw.(T)		<i>e</i>			
Ochoco Meadows Plw.(S)		<i>e</i>			
Ochoco Meadows Plw.(M)		<i>e</i>			
Racing Creek		N/R		0.0	12.6 ^b
Snow Mountain		<i>e</i>			
Snow Mountain Plw.(T)		<i>e</i>			
Snow Mountain Plw.(S)		<i>e</i>			
Snow Mountain Plw.(M)		<i>e</i>			
Summit Lake Pillow(T)	----			28.1	--
Summit Lake Pillow(S)	4/29	75	30.4	32.0	40.6 ^b
Summit Lake Pillow(M)	4/29	--	31.2	27.7	--
Tamarack		<i>e</i>			
Tangent	4/29	13	5.4	3.2	14.7
Three Creek Butte	4/28	0	0.0	0.0	2.4
Three Creek Meadow	4/28	6	3.0	9.5	13.9
Three Creek Mdw. Plw.(T)	----				
Three Creek Mdw. Plw.(S)	4/28	37	13.9	16.9	--
Three Creek Mdw. Plw.(M)	4/28	--	9.4	12.5	--
Waldo Lake		<i>e</i>			
Whitewater Meadow *	5/2	0	0.0	0.0	--
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS					
Brooks Meadow		<i>e</i>			
Clear Lake	4/29	1	0.6	7.1	7.3
Clear Lake Pillow (S)	4/29	14	5.5	16.6	--
Clear Lake Pillow (M)	----				
Clear Lake Expt.	4/29	14	5.5	16.6	11.4 ^b
Greenpoint		<i>e</i>			
Greenpoint Pillow(T)		<i>e</i>			
Greenpoint Pillow(S)		<i>e</i>			
Greenpoint Pillow(M)		<i>e</i>			
Mt. Hood Test Site (T)	5/1	--	62.0	42.4	68.3 ^b
Mt. Hood Test Site (S)	5/2	120	59.5	64.4	63.3 ^b
Mt. Hood Test Site (M)	5/2	--	65.2	42.6	--
Mud Ridge Pillow(T)	5/1	--	18.2	25.7	--
Mud Ridge Pillow(S)	4/29	38	15.1	19.5	30.3
Mud Ridge Pillow(M)	4/29	--	20.0	27.0	--
Red Hill		<i>e</i>			
Red Hill Pillow(T)		<i>e</i>			
Red Hill Pillow(S)		<i>e</i>			
Red Hill Pillow(M)		<i>e</i>			
Still Creek	4/29	32	12.8	24.2	24.1
Switchback		<i>e</i>			
Tilly Jane		<i>e</i>			

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 2

MAY 1, 1980

PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average ^c
Aneroid Lake #2 (Wallowa County)	7300	From 3/27 To 4/28	9.00"		
Arbuckle Mountain (Morrow County)	5400	From 3/28 To 5/1	3.00"		
Beaver Reservoir (Union County)	5150	From 3/28 To 5/2	2.52"		
Bowman Springs (Union County)	4580	From 3/28 To 5/1	2.88"		
Cascade Summit (Lane County)	4880	From 3/25 To 4/29	7.44"		
Chemult (Klamath County)	4760	From 2/28 To 5/1	6.00"		
Clear Lake (Wasco County)	3500	From 3/26 To 4/29	5.76"		
Cold Springs (Klamath County)	6100	From 3/31 To 4/29	5.52"		
County Line (Umatilla County)	4800	From 3/28 To 5/1	3.60"		
Daly Lake (Linn County)	3600	From 3/30 To 4/30	5.28"		
Diamond Lake (Douglas County)	4600	From 3/25 To 4/28	3.96"		
Eilertson Meadow (Baker County)	5400	From 3/25 To 5/2	3.60"		
Fish Lake (Jackson County)	4665	From 3/27 To 4/25	4.20"		
Fourmile Lake (Klamath County)	6000	From 3/27 To 4/25	4.68"		
Gold Center (Grant County)	5340	From 3/25 To 5/2	1.68"		
High Ridge (Umatilla County)	4150	From 3/28 To 5/2	4.56"		
Hogg Pass (Jefferson County)	4755	From 3/26 To 5/1	8.40"		
Holland Meadows (Lane County)	4900	From 3/30 To 4/30	7.80"		
Irish-Taylor (Deschutes County)	5500	From 3/28 To 4/30	6.48"		
Jump Off Joe (Linn County)	3400	From 3/30 To 5/1	6.72"		
Lake Creek (Grant County)	5120	From 3/31 To 4/29	1.44"		
Little Meadows (Linn County)	4000	From 3/30 To 4/30	9.84"		

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 2

MAY 1, 1980

PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average ^c
Lucky Strike (Umatilla County)	5050	From 3/28 To 5/1	2.13"		
Madison Butte (Morrow County)	5250	From 3/28 To 5/1	1.92"		
Marion Forks (Linn County)	2730	From 3/26 To 5/1	8.76"		
Marks Creek (Crook County)	4540	From 3/4 To 4/30	3.50"		
McKenzie (Lane County)	5000	From 3/31 To 4/27	10.20"		
Moss Springs (Union County)	5850	From 3/25 To 4/26	6.00"		
Mt. Hood Test Site (Clackamas County)	5400	From 2/26 To 5/2	17.12"		
Mt. Howard (Wallowa County)	7910	From 3/25 To 4/26	5.28"		
Mud Ridge (Clackamas County)	3800	From 3/26 To 4/29	6.36"		
New Crescent Lake (Klamath County)	4800	From 3/26 To 4/29	4.08"		
Railroad Overpass (Lane County)	2750	From 3/25 To 4/29	4.80"		
Roaring River (Lane County)	4900	From 3/30 To 4/30	6.96"		
Rock Springs (Grant County)	5100	From 3/26 To 4/29	2.40"		
Salt Creek Falls (Lane County)	4000	From 3/25 To 4/29	7.44"		
Santiam Junction (Lane County)	3750	From 3/26 To 5/1	7.32"		
Schneider Meadows (Baker County)	5400	From 3/25 To 4/26	2.88"		
Starr Ridge (Grant County)	5156	From 3/26 To 4/29	2.52"		
Strawberry (Lake County)	5760	From 3/26 To 4/28	1.80"		
Taylor Butte (Klamath County)	5040	From 3/26 To 4/30	1.68"		
Taylor Green (Baker County)	5740	From 3/25 To 4/26	4.56"		
Three Creek Meadows (Deschutes County)	5650	From 3/31 To 4/28	5.28"		
Tipton (Baker County)	5100	From 3/25 To 5/2	1.68"		
Wolf Creek (Union County)	5700	From 3/25 To 5/2	1.92"		

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

1903* Madison B

1902P* Arbutle
18020* Bowman Sp
20E4 Butte Cre
1804* Emigrant
18019* High Rld
1806P* Lucky Sta
1805 Meacham
1803 Tollgate

18016 Blue Mtn
1803 Tollgate

902 SNOW COURSE
1902A SNOW COURSE
1902B AERIAL MARK
1902P SNOW COURSE
1902b PRECIPITATION
1902i RADIO TELE

1903* Madison B

1902P* Arbutle
18020* Bowman Sp
20E4 Butte Cre
1804* Emigrant
18019* High Rld
1806P* Lucky Sta
1805 Meacham
1803 Tollgate

18016 Blue Mtn
1803 Tollgate

902 SNOW COURSE
1902A SNOW COURSE
1902B AERIAL MARK
1902P SNOW COURSE
1902b PRECIPITATION
1902i RADIO TELE

The Following Organizations Cooperate in the Oregon Snow Survey Work

STATE

- Idaho Cooperative Snow Surveys
- Nevada Cooperative Snow Surveys
- Oregon State University
- Oregon Department Of Water Resources
- Soil and Water Conservation Districts of Oregon

COUNTY

- Douglas County Water Resources Survey

FEDERAL

- Department of Agriculture
 - Cooperative Extension Service
 - Forest Service
 - Soil Conservation Service
- Department of Commerce
 - NOAA, National Weather Service
- Department of the Interior
 - Bonneville Power Administration
 - Bureau of Land Management
 - Bureau of Reclamation
 - Fish and Wildlife Service
 - Geological Survey
- Department of National Defense
 - Corps of Army Engineers

PUBLIC UTILITIES

- Pacific Power and Light Company
- Portland General Electric Company
- California-Pacific National

MUNICIPALITIES

- City of Baker
- City of La Grande
- City of Portland
- City of The Dalles
- City of Walla Walla

IRRIGATION DISTRICTS

- Arnold Irrigation District
- Associated Ditch Companies
- Burnt River Irrigation District
- Central Oregon Irrigation District
- East Fork Irrigation District
- Grants Pass Irrigation District
- Hood River Irrigation District
- Jordan Valley Irrigation District
- Juniper Flat Irrigation District
- Lakeview Water Users, Incorporated
- Medford Irrigation District
- Middle Fork Irrigation District
- North Board of Control - Owyhee Project
- North Unit Irrigation District
- Ochoco Irrigation District
- Rogue River Valley Irrigation District
- South Board of Control - Owyhee Project
- Squaw Creek Irrigation District
- Talent Irrigation District
- Tumalo Project
- Vale - Oregon Irrigation District
- Warm Springs Irrigation District

PRIVATE ORGANIZATIONS

- The Crag Rats, Hood River, Oregon

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
1220 S.W. THIRD AVE.
PORTLAND, OREGON 97204

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

Return this entire sheet to above address, if you do NOT wish to receive this material ☐, or if change of address is needed ☐ (indicate changes in address below, including ZIP code).



POSTAGE AND FEES PAID
U. S. DEPARTMENT OF
AGRICULTURE
AGR-101

FIRST CLASS MAIL

RECEIVED
MAY 22 '80
PROCUREMENT SECTION
CURRENT SERIAL RECORDS

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

*"The Conservation of Water begins
with the Snow Survey"*

USDA NATIONAL AGRICULTURAL LIBRARY
CURRENT SERIAL RECORD
BELTSVILLE, MARYLAND 20705